SEQUENCE LISTING

<110> Eli Lilly and Company

<120> FSH AND FSH VARIANT FORMULATIONS, PRODUCTS AND METHODS

<130> X12383M Sequence Listing

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<150> 60/093906
<151> 1998-07-23

<150> 60/094611
<151> 1998-07-30

<150> 60/094767
<151> 1998-07-31

<150> 60/098711
<151> 1998-09-01

<150> 60/100696
<151> 1998-09-17

<160> 20

<170> PatentIn Ver. 2.0

<210> 1
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<212> PRT
<213> mammalian

<400> 1

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Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
  1               5                  10                  15

Lys Glu Asn Lys Tyr Phe Ser Lys Pro Asp Ala Pro Ile Tyr Gln Cys
             20                  25                  30

Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
         35                  40                  45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
     50                  55                  60
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```
Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Val Arg Val
 65                  70                  75                  80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
                85                  90                  95
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<210> 2
<211> 111
<212> PRT
<213> mammalian

<400> 2

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Arg Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
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Cys Gly Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
            20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Arg Asp Pro Ala Arg Pro Asn Ile Gln
        35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
    50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
 65                  70                  75                  80

Glu Cys His Cys Ser Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Arg Glu Ile Lys Glu
            100                 105                 110
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<210> 3
<211> 96
<212> PRT
<213> mammalian

<400> 3

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Phe Pro Asp Gly Glu Phe Thr Thr Gln Asp Cys Pro Glu Cys Lys Leu
  1               5                  10                  15

Arg Glu Asn Lys Tyr Phe Phe Lys Leu Gly Val Pro Ile Tyr Gln Cys
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```
            20                  25                  30

Lys Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Arg
        35                  40                  45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ser Thr Cys Cys
    50                  55                  60

Val Ala Lys Ala Phe Ile Arg Val Thr Val Met Gly Asn Ile Lys Leu
65                  70                  75                  80

Glu Asn His Thr Gln Cys Tyr Cys Ser Thr Cys Tyr His His Lys Ile
                85                  90                  95
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<212> PRT
<213> mammalian

<400> 4
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Val Glu Lys Glu Gly
  1               5                  10                  15

Cys Gly Phe Cys Ile Thr Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
            20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
        35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
    50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65                  70                  75                  80

Ala Cys His Cys Gly Lys Cys Asn Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Asp Met Lys Glu
            100                 105                 110
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<210> 5
<211> 92
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<212> PRT
<213> Homo sapiens

<400> 5
Ala Pro Asp Val Gln Asp Cys Pro Glu Cys Thr Leu Gln Glu Asn Pro
1 5 10 15

Phe Phe Ser Gln Pro Gly Ala Pro Ile Leu Gln Cys Met Gly Cys Cys
20 25 30

Phe Ser Arg Ala Tyr Pro Thr Pro Leu Arg Ser Lys Lys Thr Met Leu
35 40 45

Val Gln Lys Asn Val Thr Ser Glu Ser Thr Cys Cys Val Ala Lys Ser
50 55 60

Tyr Asn Arg Val Thr Val Met Gly Gly Phe Lys Val Glu Asn His Thr
65 70 75 80

Ala Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
85 90

<210> 6
<211> 111
<212> PRT
<213> Homo sapiens

<400> 6
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
1 5 10 15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys Glu

100 105 110

<210> 7
<211> 96
<212> PRT
<213> mammalian

<400> 7
Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
1 5 10 15

Lys Glu Asn Lys Tyr Phe Ser Lys Leu Gly Ala Pro Ile Tyr Gln Cys
20 25 30

Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
35 40 45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
50 55 60

Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Ala Arg Val
65 70 75 80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
85 90 95

<210> 8
<211> 111
<212> PRT
<213> mammalian

<400> 8
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
1 5 10 15

Cys Asn Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Glu Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Ser Glu Met Lys Glu
100 105 110

<210> 9
<211> 96
<212> PRT
<213> mammalian

<400> 9
Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
1 5 10 15

Lys Glu Asn Lys Tyr Phe Ser Lys Pro Asp Ala Pro Ile Tyr Gln Cys
20 25 30

Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
35 40 45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
50 55 60

Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Val Arg Val
65 70 75 80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
85 90 95

<210> 10
<211> 111
<212> PRT
<213> mammalian

<400> 10
Arg Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
1 5 10 15

```
Cys Ser Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
             20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
         35                  40                  45

Lys Ala Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
     50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
 65                  70                  75                  80

Glu Cys His Cys Gly Lys Cys Asp Arg Asp Ser Thr Asp Cys Thr Val
                 85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Ser Asp Ile Arg Glu
            100                 105                 110
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<210> 11
<211> 108
<212> PRT
<213> Homo sapiens

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<400> 11
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
  1               5                  10                  15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
             20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
         35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
     50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
 65                  70                  75                  80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                 85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu
            100                 105
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<210> 12

<211> 109
<212> PRT
<213> Homo sapiens

<400> 12
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
1 5 10 15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met
100 105

<210> 13
<211> 110
<212> PRT
<213> Homo sapiens

<400> 13
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
1 5 10 15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys
100 105 110

<210> 14
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<212> DNA
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ctaaggtcca agaagacgat gttggtccaa aagaacgtca cctcagagtc cacttgctgt 180
gtagctaaat catataacag ggtcacagta atgggggtt tcaaagtgga gaaccacacg 240
gcgtgccact gcagtacttg ttattatcac aaatct 276

<210> 15
<211> 324
<212> DNA
<213> Homo sapiens

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ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacatacca agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaa 324

<210> 16
<211> 327
<212> DNA
<213> Homo sapiens

<400> 16
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ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacatacca agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatg 327

<210> 17
<211> 330
<212> DNA

<213> Homo sapiens

<400> 17
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ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatgaaa 330

<210> 18
<211> 333
<212> DNA
<213> Homo sapiens

<400> 18
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ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatgaaa gaa 333

<210> 19
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Modified to facilitate cloning.

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ccgggtgccc caatacttca gtgcatgggc tgctgcttct caagagcata tcccactcca 120
ctaaggtcca agaagacgat gttggtccaa aagaacgtca cctcagagtc cacttgctgt 180
gtagctaaat catataacag ggtcacagta atgggggtt tcaaagtgga gaaccacacg 240
gcgtgccact gcagtacttg ttattatcac aaatct 276

<210> 20
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Modified to facilitate cloning.

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atatcgatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccggccc gtcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtacgcgtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaa 324

SEQUENCE LISTING

<110> James A. Hoffmann and Jirong Lu

<120> FSH FORMULATION

<130> X12383N Sequence Listing

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<150> 60/093906
<151> 1998-07-23

<150> 60/094611
<151> 1998-07-30

<150> 60/094767
<151> 1998-07-31

<150> 60/098711
<151> 1998-09-01

<150> 60/100696
<151> 1998-09-17

<160> 20

<170> PatentIn Ver. 2.0

<210> 1
<211> 96
<212> PRT
<213> mammalian

<400> 1

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Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
  1               5                  10                  15

Lys Glu Asn Lys Tyr Phe Ser Lys Pro Asp Ala Pro Ile Tyr Gln Cys
            20                  25                  30

Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
        35                  40                  45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
    50                  55                  60

Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Val Arg Val
65                  70                  75                  80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
                85                  90                  95
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<210> 2
<211> 111
<212> PRT
<213> mammalian

<400> 2

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Arg Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
  1               5                  10                  15
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Cys Gly Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Arg Asp Pro Ala Arg Pro Asn Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Glu Cys His Cys Ser Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Arg Glu Ile Lys Glu
100 105 110

<210> 3
<211> 96
<212> PRT
<213> mammalian

<400> 3
Phe Pro Asp Gly Glu Phe Thr Thr Gln Asp Cys Pro Glu Cys Lys Leu
1 5 10 15

Arg Glu Asn Lys Tyr Phe Phe Lys Leu Gly Val Pro Ile Tyr Gln Cys
20 25 30

Lys Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Arg
35 40 45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ser Thr Cys Cys
50 55 60

Val Ala Lys Ala Phe Ile Arg Val Thr Val Met Gly Asn Ile Lys Leu
65 70 75 80

Glu Asn His Thr Gln Cys Tyr Cys Ser Thr Cys Tyr His His Lys Ile
85 90 95

<210> 4
<211> 111
<212> PRT
<213> mammalian

<400> 4
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Val Glu Lys Glu Gly
1 5 10 15

Cys Gly Phe Cys Ile Thr Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

```
Ala Cys His Cys Gly Lys Cys Asn Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Asp Met Lys Glu
            100                 105                 110


<210> 5
<211> 92
<212> PRT
<213> Homo sapiens

<400> 5
Ala Pro Asp Val Gln Asp Cys Pro Glu Cys Thr Leu Gln Glu Asn Pro
  1               5                  10                  15

Phe Phe Ser Gln Pro Gly Ala Pro Ile Leu Gln Cys Met Gly Cys Cys
            20                  25                  30

Phe Ser Arg Ala Tyr Pro Thr Pro Leu Arg Ser Lys Lys Thr Met Leu
        35                  40                  45

Val Gln Lys Asn Val Thr Ser Glu Ser Thr Cys Cys Val Ala Lys Ser
    50                  55                  60

Tyr Asn Arg Val Thr Val Met Gly Gly Phe Lys Val Glu Asn His Thr
65                  70                  75                  80

Ala Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
                85                  90


<210> 6
<211> 111
<212> PRT
<213> Homo sapiens

<400> 6
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
  1               5                  10                  15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
            20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
        35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
    50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65                  70                  75                  80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys Glu
            100                 105                 110
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<210> 7
<211> 96
<212> PRT
<213> mammalian

<400> 7
Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
1 5 10 15

Lys Glu Asn Lys Tyr Phe Ser Lys Leu Gly Ala Pro Ile Tyr Gln Cys
20 25 30

Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
35 40 45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
50 55 60

Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Ala Arg Val
65 70 75 80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
85 90 95

<210> 8
<211> 111
<212> PRT
<213> mammalian

<400> 8
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
1 5 10 15

Cys Asn Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
20 25 30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
35 40 45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
50 55 60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65 70 75 80

Glu Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
85 90 95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Ser Glu Met Lys Glu
100 105 110

<210> 9
<211> 96
<212> PRT
<213> mammalian

<400> 9
Phe Pro Asp Gly Glu Phe Thr Met Gln Gly Cys Pro Glu Cys Lys Leu
1 5 10 15

Lys Glu Asn Lys Tyr Phe Ser Lys Pro Asp Ala Pro Ile Tyr Gln Cys
20 25 30

```
Met Gly Cys Cys Phe Ser Arg Ala Tyr Pro Thr Pro Ala Arg Ser Lys
          35                  40                  45

Lys Thr Met Leu Val Pro Lys Asn Ile Thr Ser Glu Ala Thr Cys Cys
      50                  55                  60

Val Ala Lys Ala Phe Thr Lys Ala Thr Val Met Gly Asn Val Arg Val
 65                  70                  75                  80

Glu Asn His Thr Glu Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
                 85                  90                  95
```

<210> 10
<211> 111
<212> PRT
<213> mammalian

<400> 10

```
Arg Ser Cys Glu Leu Thr Asn Ile Thr Ile Thr Val Glu Lys Glu Glu
  1               5                  10                  15

Cys Ser Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
            20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Asn Ile Gln
        35                  40                  45

Lys Ala Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Lys Val Pro
    50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65                  70                  75                  80

Glu Cys His Cys Gly Lys Cys Asp Arg Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Ser Asp Ile Arg Glu
            100                 105                 110
```

<210> 11
<211> 108
<212> PRT
<213> Homo sapiens

<400> 11

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Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
  1               5                  10                  15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
            20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
        35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
    50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
65                  70                  75                  80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95
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```
Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu
            100                 105


<210> 12
<211> 109
<212> PRT
<213> Homo sapiens

<400> 12
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
  1               5                  10                  15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
             20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
         35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
     50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
 65                  70                  75                  80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met
            100                 105


<210> 13
<211> 110
<212> PRT
<213> Homo sapiens

<400> 13
Asn Ser Cys Glu Leu Thr Asn Ile Thr Ile Ala Ile Glu Lys Glu Glu
  1               5                  10                  15

Cys Arg Phe Cys Ile Ser Ile Asn Thr Thr Trp Cys Ala Gly Tyr Cys
             20                  25                  30

Tyr Thr Arg Asp Leu Val Tyr Lys Asp Pro Ala Arg Pro Lys Ile Gln
         35                  40                  45

Lys Thr Cys Thr Phe Lys Glu Leu Val Tyr Glu Thr Val Arg Val Pro
     50                  55                  60

Gly Cys Ala His His Ala Asp Ser Leu Tyr Thr Tyr Pro Val Ala Thr
 65                  70                  75                  80

Gln Cys His Cys Gly Lys Cys Asp Ser Asp Ser Thr Asp Cys Thr Val
                85                  90                  95

Arg Gly Leu Gly Pro Ser Tyr Cys Ser Phe Gly Glu Met Lys
            100                 105                 110
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<210> 14
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<212> DNA
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ccgggtgccc caatacttca gtgcatgggc tgctgcttct ctagagcata tcccactcca 120
ctaaggtcca agaagacgat gttggtccaa aagaacgtca cctcagagtc cacttgctgt 180
gtagctaaat catataacag ggtcacagta atgggggttt tcaaagtgga gaaccacacg 240
gcgtgccact gcagtacttg ttattatcac aaatct 276

<210> 15
<211> 324
<212> DNA
<213> Homo sapiens

<400> 15
aatagctgtg agctgaccaa catcaccatt gcaatagaga aagaagaatg tcgtttctgc 60
ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaa 324

<210> 16
<211> 327
<212> DNA
<213> Homo sapiens

<400> 16
aatagctgtg agctgaccaa catcaccatt gcaatagaga aagaagaatg tcgtttctgc 60
ataagcatca acaccacttg gtgtgctggc tactgctaca ccagggatct ggtgtataag 120
gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatg 327

<210> 17
<211> 330
<212> DNA
<213> Homo sapiens

<400> 17
aatagctgtg agctgaccaa catcaccatt gcaatagaga aagaagaatg tcgtttctgc 60
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gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatgaaa 330

<210> 18
<211> 333
<212> DNA
<213> Homo sapiens

<400> 18
aatagctgtg agctgaccaa catcaccatt gcaatagaga aagaagaatg tcgtttctgc 60
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gacccagcca ggcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtgagagtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaaatgaaa gaa 333

<210> 19
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Modified to facilitate cloning.

<400> 19
gctcctgatg tgcaggattg cccagaatgc acgctacagg aaaacccatt cttctcccag 60
ccgggtgccc caatacttca gtgcatgggc tgctgcttct caagagcata tcccactcca 120
ctaaggtcca agaagacgat gttggtccaa aagaacgtca cctcagagtc cacttgctgt 180
gtagctaaat catataacag ggtcacagta atgggggttt tcaaagtgga gaaccacacg 240
gcgtgccact gcagtacttg ttattatcac aaatct 276

<210> 20
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Modified to facilitate cloning.

<400> 20
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gacccggccc gtcccaaaat ccagaaaaca tgtaccttca aggaactggt atatgaaaca 180
gtacgcgtgc ccggctgtgc tcaccatgca gattccttgt atacataccc agtggccacc 240
cagtgtcact gtggcaagtg tgacagcgac agcactgatt gtactgtgcg aggcctgggg 300
cccagctact gctcctttgg tgaa 324